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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/521,023 | 04/13/2005 | Gerold Schultheiss | 081859-0106 | 9487 |
| 22428 7590 05/25/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | EXAMINER BONCK, RODNEY H | |
| | | | ART UNIT 3681 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,023

Applicant(s)

SCHULTHEISS ET AL.

Examiner

Rodney H. Bonck

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>04/18/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following action is in response to the amendment received April 18, 2007.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed April 18, 2007. The cited document has been considered.

Specification

The disclosure is objected to because of the following informalities:

Reference to specific claim numbers in the specification is objected to because the claims can be amended, canceled, and/or renumbered during prosecution, rendering the references thereto meaningless.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 appears to be inaccurate in stating that the

fluid friction clutch and the electromagnetic clutch are "arranged on both sides of the web" since each individual clutch is itself only on one side of the web. It would appear to be more accurate to state that the fluid friction clutch and the electromagnetic clutch are on "opposite" sides of the web. In claim 16, the intended antecedent of "its" is not clear. The claim is confusing in that it appears to recite that the coolant pump impeller is part of the bearing housing. In claim 17, there appears to be no proper antecedent basis for "coolant pump impeller", and it is questioned whether this claim should depend from claim 16. In claim 18, "the rotating part" lacks a proper antecedent.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 and 14, insofar as definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller('257). Mueller discloses a device having a coolant circuit comprising a drive train having a drive wheel 40, 96, a first clutch comprising a fluid friction clutch 60 and a drive shaft 76. The device further comprises a second clutch comprising an electromagnetic clutch 56b, 64a connected to the drive train in parallel with the fluid friction clutch. The drive wheel comprises a pulley 40 with a web 96. The fluid friction clutch and the electromagnetic clutch each comprise a driving disk that can

be driven by the pulley and they are arranged on opposite sides of web 96. The driving disk 92 of the fluid friction clutch is arranged rotatably in a working space formed by the pulley 40, the web 96, and a cover 58 and is filled with viscous fluid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16-19, insofar as definite, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller('257) in view of Faller et al.('887). The Faller et al. device discloses a device for driving a water pump wherein an electromagnetic clutch and an eddy current clutch are provided in parallel to provide two-speed operation of the water

Art Unit: 3681

pump. It would have been obvious to similarly adapt the Mueller device to drive a water pump, the motivation being to provide two-speed operation. In both devices the electromagnetic coil is fastened to a bearing housing. The Faller et al. device is adapted to be preassembled and mounted as a unit.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller('257) in view of Makoto et al.(JP 62-210287 A). The Makoto et al. device provides a fluid friction clutch and an electromagnetic clutch in parallel to drive a water pump at two different speeds in response to at least one parameter, which in this case is coolant temperature. It would have been obvious to control Mueller to drive a water pump in this manner, the motivation being to provide more efficient cooling of the engine.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller('257) in view of Makoto et al.(JP 62-210287 A) as applied to claims 20 and 21 above, and further in view of Brewer('716). It is well known in this art, as shown by Brewer, that at higher speeds cooling requirements of the engine are different than at lower speeds. Thus it would have been obvious to also control the Mueller device, as modified in view of Makoto et al., to vary the water pump coupling in response to speed, the motivation being to provide more efficient cooling of the engine.

Allowable Subject Matter

Claim 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Amendment

Applicants maintain that the expression "the coolant becoming salted up" is correct and should not be changed. Accordingly, the objection thereto is withdrawn. The objection to claim numbers in the specification has not been overcome, however, and has been repeated.

In view of the cancellation of claims 1-12, the rejections under 35 USC 112, 2nd paragraph, 35 USC 102(b), and 35 USC 103(a) set forth in the previous Office action are withdrawn. New grounds of rejection are set forth above.

Applicant's arguments in the response received April 18, 2007 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
May 21, 2007